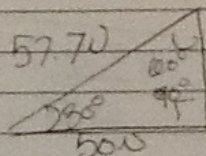


Page Tunnicliff
Physics
3-2-12

$$F=ma \quad 57.7N$$

$$F=10(5)$$

$$F=50N$$



$$28.8N$$

$$30(\sin)50 = 28.8N$$

$$57.7N \text{ at } 30^\circ \text{ N of E}$$

$$a^2 + b^2 = c^2$$

$$28.8^2 + 50^2 = c^2$$

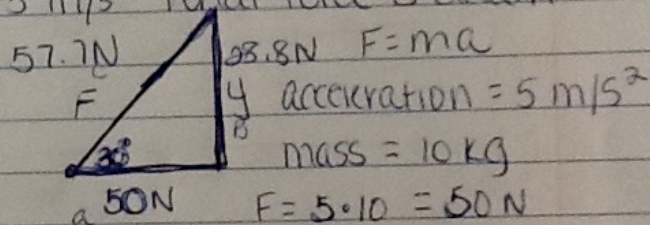
$$= 57.7N$$

$$\frac{50N}{30kg} = 1.6 m/s^2$$

$$\frac{43.3 N}{30 kg} = 1.4 m/s^2 \quad 50 \cos(30)$$

$$F(x) = 43.3 N$$

Question: Adam is sliding a 10 kg box across a frictionless floor by applying a force at an angle of 30 degrees above the horizontal. If the box is accelerating at 5 m/s² what force is Adam applying.



$$F = 5 \cdot 10 = 50 N$$

sohcahtoa

$$\tan(30) = \frac{y}{50} = 28.8 N$$

$$a^2 + b^2 = c^2$$

$$50^2 + 28.8^2 = c^2$$

$$2500 + 829.44 = c^2$$

$$\sqrt{3329.44} = \sqrt{c^2}$$

$$c = 57.7 N$$

NOON

2/2
2/28/12

Wiggle

Warm Up

$50N + 5N = 90N$

$F = MA$

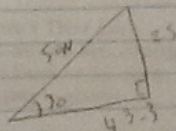
10 kg

$90 \div 10 = 9$

$A = 9 m/s^2$

Warm Up

3/1/12



43.3/30

$F = 43.3 N$

$M = 30 kg$

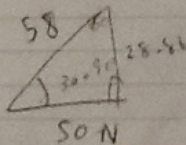
$A = 1.4 m/s^2$

Warmup

3/2/12

$F = 10 kg \cdot 5 m/s^2 = 50N$

$50 \sin(30) = 25$



$50 / \cos(30) = 58$

